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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,670	04/13/2001	Xi Chen	023925-00018	2114

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SQUIRE, SANDERS & DEMPSEY L.L.P.
14TH FLOOR
8000 TOWERS CRESCENT
TYSONS CORNER, VA 22182

EXAMINER	
MYERS, PAUL R	

ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/833,670	CHEN ET AL.	
	Examiner	Art Unit	
	Paul R. Myers	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *12-23 and 31-43* is/are allowed.

6)☒ Claim(s) *1-11 and 24-29* is/are rejected.

7)☒ Claim(s) *30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/13/04 have been fully considered but they are not persuasive.

In regards to applicants argument that Melvin does not teach the newly added claim language from claim 3. The previous action already stated that Melvin does not teach this feature, and Gerety was provided for teaching this feature.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that Gerety does not teach signal amplification) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In regards to applicants argument that Gerety does not teach repeaters. Melvin teaches repeaters that handle collision detection in accordance with the IEEE 802.3 communications standard but is silent on the details of the collision detection. Gerety teaches handling collision detection in accordance with the IEEE 802.3 communications standard in which the collision detection signal is transmitted out on a reference bus to all devices including itself.

In regards to applicants argument that "a *prima face* case of obviousness has not been established in this instance because the 'suggestion or motivation... to combine reference teachings' required under MPEP §2143.01 to establish such obviousness has not been shown": Melvin teaches repeaters that handle collision detection in accordance with the IEEE 802.3 communications standard but is silent on the details of the collision detection. Gerety teaches

handling collision detection in accordance with the IEEE 802.3 communications standard in which the collision detection signal is transmitted out on a reference bus to all devices including itself. Thus the motivation to combine the IEEE 802.3 collision detection of Gerety with the repeaters of Melvin that have IEEE 802.3 collision detection is to make Melvin's IEEE 802.3 compliant repeaters actually be IEEE 802.3 compliant.

In regards to applicants argument that Molle fails to disclose the feature for which Gerety was cited. Gerety teaches this feature.

In regards to applicants argument that Abraham fails to disclose the feature for which Gerety was cited. Gerety teaches this feature.

In response to applicants traverse of taking notice. Applicant has attempted to challenge the Examiner's taking of Official Notice. However, Applicant has not provided adequate information or argument that *on its face* creates a reasonable doubt regarding the circumstances justifying the Official Notice. See MPEP 2144.03 and In re Boon, 169 USPQ 231 (CCPA 1971). The formula for bandwidth is bit-width X frequency = bandwidth. Thus 4-bit X 2.5-MHz = 10-Mbits. and 1-bit X 10-MHz = 10Mbits. In regards to applicants argument that to obtain a 10-Mbit bus from a 1-bit wide bus, appropriate control/clock signals must be provided. The examiner agrees. The formula is bit-width X frequency = bandwidth. Thus the appropriate clock is 10MHz. This is basic Math and is a trivial matter. The Official Notice was taken that 1-bit wide bus at 10-MHz that is 10-Mbits were well known. The examiner is further providing PN 5,777,567 to Murata et al that both provides this well known formula and gives the example of a 1-bit wide bus at 10-MHz providing a 10-Mbit bandwidth (Column 1 lines 32-48).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-9, 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melvin PN 6,041,065 in view of Gerety PN 4,638,311.

In regards to claims 1, 3, 9 and 24: Melvin teaches a system connecting multiple repeaters (16, 17, 17) into a single collision domain comprising: a first repeater (16) having a plurality of network ports (19, 20, 21, 22) and "stack" connectors (the connections to bus 14 and 15); a second repeater (17) having a plurality of network ports (23, 24, 25, 26) and "stack" connectors (the connections to bus 14 and 15); and a stacking bus (either 14 or 15) connecting said first repeater (16) via said stack connectors of said first repeater (16) to said second repeater (17) via said connectors of said second repeater (17) and configured to relay carrier signals (Column 1 lines 7-38), collision signals (Column 1 lines 7-38) and data between said first (16) and said second repeaters (17). Melvin also teaches collision jam generation Column 1 lines 33-39. Melvin teaches that collision detection is performed in accordance with 802.3 however Melvin is totally silent as to how the collision detection is actually performed. Gerety teaches in accordance with the 802.3 standard handling collision detection in which a collision detection signal is transmitted out on a reference bus to all other devices including itself. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Gerety's

collision detection method because this would have made Melvin's 802.3 compliant repeaters actually be compliant with the 802.3 standard.

In regards to claim 2: Melvin teaches the repeaters are configured to detect a collision across its plurality of ports and send a collision signal to said second repeater via said stacking bus (Column 2 lines 28-43 signal CD).

In regards to claims 4-5: Melvin teaches the IRB buses being 5 bit data buses in accordance with the 802.3U standard (Column 3 lines 7-15).

In regards to claims 6-8: Melvin teaches 10MB and 100MB Ethernet repeaters including 10/100MB bridges.

In regards to claim 27: Melvin teaches collision detection which would fit the definition of collision detection. Which is detecting signals simultaneously on two or more separate ports.

4. Claims 10-11, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melvin PN 6,041,065 in view of Gerety PN 4,638,311 as applied to claim 1 above, and further in view of Molle PN 5,978,383.

In regards to claims 10, 28: Melvin teaches detecting a collision Melvin does not teach a carrier signal being what is used to detect the collision. Molle teaches using a carrier signal to detect a collision. It would have been obvious to use a carrier signal to detect a collision because this would have allowed for fast collision detection.

In regards to claim 11: Melvin in view of Molle teaches collision detection using the carrier signal as described above. Melvin in view of Molle does the collision signal being transmitted to all devices including the repeater itself. Gerety teaches in accordance with the

802.3 standard handling collision detection in which a collision detection signal is transmitted out on a reference bus to all other devices including itself. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Gerety's collision detection method because this would have made Melvin's 802.3 compliant repeaters actually be compliant with the 802.3 standard.

5. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melvin PN 6,041,065 in view of Gerety PN 4,638,311 as applied to claim 1 above, and further in view of Abraham et al PN 5,301,303.

In regards to claim 25: Melvin teaches the repeaters complying with the IEEE 802.3 standard however, other than the 4 or 5 bit databus and the collision signal, Melvin is silent on what signals are on the backplane. Abraham et al teaches a backplane compliant to the 802.3 standard which includes a clock, databus, data enable, carrier, and collision signals. It would have been obvious to have Melvin's 802.3 compliant backplane include the signals of Abraham et al because this would have made it compliant with IEEE 802.3.

In regards to claim 26: Melvin teaches a 5 bit databus and a 25MHz clock (Column 5 lines 18-34).

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melvin PN 6,041,065 in view of Gerety PN 4,638,311 as applied to claim 1 above, and further in view of what is well known in the art as evidenced by Murata et al PN 5,777,567.

In regards to claim 29: Melvin teaches the 10Mbit bus being 4 bits wide at 2.5 MHz. Official Notice is taken that a 1 bit wide bus at 10MHz is also a 10Mbit bus and is well known. It would have been obvious to use a 1 bit 10 MHz bus because this would have reduced the number of required signal lines.

Allowable Subject Matter

7. Claims 12-23 and 31-43 allowed.

8. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 703 305 9656. The examiner can normally be reached on Mon-Thur 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 703 305 4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul R. Myers

PRM
April 12, 2004